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**NEW STUDY SHOWS REDUCED HOSPITAL STAY AND IMPROVED
PATIENT OUTCOMES IN PEDIATRIC PATIENTS TREATED WITH
OMNIGUIDE'S® FLEXIBLE CO₂ LASER FIBERS FOR OBSTRUCTIVE
AIRWAY FIBROMA**

The BeamPath™ CO₂ Laser Fiber was used to resect obstructive airway fibromas in children and was compared to an open surgical modality, as well as to line-of-sight articulated-arm CO₂ lasers. Results show significant reduction in hospital stay vs. open excision and fewer follow-up procedures vs. the line-of-sight CO₂ laser system.

Cambridge, Mass.—Aug 4, 2008—[OmniGuide, Inc.](#), the developer of the first and only flexible CO₂ laser scalpel, announced today the results of a study comparing three treatment options—external surgical excision, line-of-sight CO₂ laser and the [BeamPath™](#) flexible CO₂ laser fiber. Thirty pediatric patients with an average age of three years underwent procedures to remove suprastomal tracheal fibromas in their windpipe. The study compared operating-room time, hospitalization time, need for follow-up procedures, and the success rate of immediate post-operative removal of a tracheal tube, a process called decannulation. The study, led by Jerome Thompson, M.D., MBA, Chairman, Department of Otolaryngology, Head and Neck Surgery at University of Tennessee Health Science Center, was presented recently at the Combined Otolaryngology Spring Meetings (COSM-2008) in Orlando, Fla.

“The pediatric suprastomal fibroma study demonstrated that the use of a flexible CO₂ laser fiber improves quality of care and clinical outcomes on several levels,” said Dr. Thompson. “The rate of immediate removal of the tracheal tube was four times greater in the flexible fiber group than the external excision group and two times greater than the line-of-sight CO₂ laser group. Additionally, half of the patients who underwent treatment with the fiberoptic CO₂ laser carrier had already undergone external excision prior and had experienced recurrence. After then undergoing treatment with the fiberoptic CO₂ laser fiber, three of the five patients had their tracheal tube removed immediately and did not experience recurrence of fibroma. Lastly, while the external excision patients are always monitored overnight in the hospital, the endoscopic procedures were performed on an outpatient basis and the children were usually sent home after three to four hours.”

Specific study results include:

- **Decreased Need for Follow-up Procedures** — 60 percent of patients treated by external excision and 70 percent of patients treated with a line-of-sight CO₂ laser required additional procedures to fully remove the lesion, compared with only 30 percent of patients treated with BeamPath fiber. Using the BeamPath, surgeons can reach deeper into the airway and more closely approximate tissue, allowing them to dissect fibroma from the tracheal wall more easily. This feature is thought to reduce the need for further procedures.
- **Increased Rate of Postoperative Decannulation** — When suprastomal fibroma is sufficiently removed, clinicians can proceed with postoperative decannulation. 40 percent of patients treated with the BeamPath fiber proceeded to immediate postoperative decannulation compared with only 20 percent of the line-of-sight CO₂ laser and 10 percent of the external excision trial arms.
- **Hospitalization Time** — Patients treated with the BeamPath fiber and traditional CO₂ laser had similar postoperative hospital stays of approximately three to four hours, compared with 24 hours for external excisions procedures. Shorter procedure and hospitalization times translate into reduced healthcare costs.

“Pediatric airway conditions present acute challenges to the surgeon due to the fragile anatomy of the airway in children. Dr. Thompson's important study establishes the superiority of OmniGuide's precision surgical fibers for the treatment of suprastomal tracheal fibromas. We are working to ensure that our precision fiber optic scalpels are available to pediatric surgeons nationwide,” said Yoel Fink, president and CEO of OmniGuide. “BeamPath precision flexible CO₂ laser fibers are enabling ENT surgeons to conduct new minimally-invasive procedures and helping improve the quality of healthcare for patients.”

About BeamPath™ Precision Optical Scalpels

Surgeons have used CO₂ lasers for more than 30 years due to the high-degree of precision cutting capabilities. However, CO₂ lasers were previously limited to “line-of-sight” procedures with no flexible delivery system available. OmniGuide’s BeamPath fiber is based on breakthrough fiber technology developed at MIT, published in *Nature* and *Science* magazines. This technology has enabled OmniGuide to manufacture the world’s first flexible fibers for CO₂ laser surgery. BeamPath fibers empower surgeons to perform delicate cutting and coagulation with minimal thermal tissue damage and maneuverability, a major advantage over traditional line-of-sight CO₂ lasers. Since their initial launch, BeamPath fibers have been used successfully in more than 4,000 surgical procedures in the fields of Laryngology, Head & Neck Surgery, Otology, Gynecology, Neurosurgery and Spine Surgery.

About OmniGuide, Inc.

OmniGuide, Inc., is the worldwide leader in precision optical scalpels for minimally invasive surgery. OmniGuide CO₂ laser fibers are clinically targeted disposable optical scalpels optimized for specific surgical procedures. The company recently introduced a

line of fiber-enabled, portable, low-cost CO₂ lasers for use in operating rooms and surgical suites. The company designs and manufactures its fiber products in Cambridge, Mass. based on multi-material photonic bandgap fiber technology exclusively licensed from MIT. The company currently distributes its products in the U.S. and Europe. OmniGuide is committed to developing products that improve and expand surgical treatment options, enhance clinical outcomes, and reduce treatment complexity and cost.

Additional information about OmniGuide can be found at www.omni-guide.com

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